

LET THERE BE LIGHT COMPUTERS!

Super virtual-computers which use light-beams in place of wires and circuitry should soon become a reality, thanks to Australian research.

Light beams are better than conventional electronics for computing and communications because nothing travels faster, and because they have no mass and suffer less from interference. They can even pass through each other without distortion. It means scientists will soon be able to create transparent computers the size of a sugar cube with millions of components and circuits all consisting of light alone.

Research by professors Allan Snyder and John Mitchell, at the Centre for the Mind at the Australian National University, is leading the world in optical computing. Professors Snyder and Mitchell base their work on light waves called "solitons" which are the building blocks of the technology required to make light guide light.

Professor Snyder calls solitons the "ultimate surfer's wave" because they go on and on without losing shape or form. Normally, light-waves dissipate and need optical fibres to contain them, but solitons create their own channels. Previously it was thought that only high-powered lasers could guide other light sources, but the ANU team has shown that an ordinary light bulb can also work in this way.

The ANU research will make it possible for engineers to conceive and design experimental models. Professor Snyder



believes the work will lead to viable new technology.

"Light controls its own destiny," Prof. Snyder said. "The question remains whether we can harness it to control ours." (Source: © Mark Thornton, alanthor@net-info.com.au)

NUKE WASTE MAY BE RECYCLED INTO CONSUMER GOODS

A controversial Directive passed by the European Council of Ministers in 1996 will allow the nuclear industry to dump radioactive waste in landfill tips, burn it, or recycle it into consumer goods.

The Directive Euratom 96/29, when it becomes law by the year 2000, will permit the release into the environment or the recycling of nuclear waste without any need for reporting or authorisation, so long as the concentration of radioactive sub-

stances in the waste is below thresholds set out in the Directive.

You guessed it: the thresholds are ridiculously lax, up to a million times more so than present law in the UK permits.

To find out more, phone the Low-Level Radiation Campaign in the UK on +44 (0)1970 824771 or visit its Internet website, www.llrc.org. (Source: Brochure issued by the Low-Level Radiation Campaign, Ammondale, Spa Road, Llandrindod, Wells, Powys LD1 5EY, UK)

US FDA REFUSES BAN ON ANIMAL ORGAN TRANSPLANTS

Despite increasing evidence that animal viruses are capable of infecting human cells, the US Food and Drug Administration (FDA) will not ban the transplantation of animal organs into humans.

Xenotransplantation at this stage primarily involves the transplanting of organs from genetically altered pigs into humans. The pigs are genetically altered so as to make the human body unlikely to reject the pig organs.

However, leading researchers are continuing to find pig retroviruses capable of infecting human cells (*Nature* 389:681-82, 16 October 1997) and are thus calling for a moratorium.

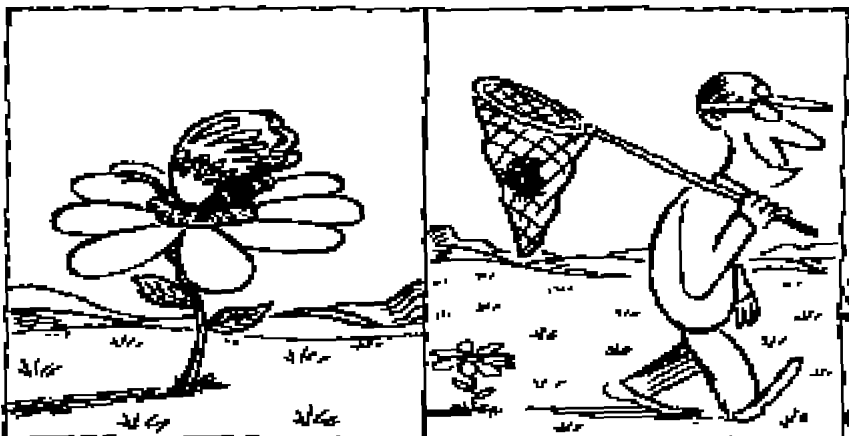
"Will there be a moratorium? No, we do not plan to do that," Michael Friedman, acting FDA commissioner recently told a meeting held near Washington, DC, to discuss the issue.

(Sources: Australian Doctor, 5 December 1997; New Scientist, 24 & 31 January 1998)

US WEAPONS CONTRACTS IN JEOPARDY IN S-E ASIA

On the surface, the 12-day tour of Asia in January by US Defense Secretary William Cohen appeared to convey his government's commitment to stability and security in South-East Asia. Beneath the surface, however, one realises that the real purpose of Cohen's visit was to shore up arms contracts in danger of collapse due to the regional economic crisis.

US arms exports are tipped to total US\$16 billion in 1998, with a quarter of this destined for Asia. The falling value of Asian currencies in recent months has seen Indonesia, Japan, Malaysia, South Korea,



HOME ADDRESS

NET ADDRESS

Thailand and the Philippines move to cancel or suspend significant arms purchases. An example is Thailand's request to renegotiate the US\$390 million contract for eight F-18A jet fighters.

A special assistant from the US Treasury accompanied Cohen to advise Asian government leaders on how their arms repayments could be extended, rolled over or paid off in some other way.

(Source: Green Left Weekly, 18 Feb 1998)

ARCHAEOLOGICAL TURMOIL OVER ANCIENT SITE IN CHILE

The discovery of a site some 12,500 years old in Monte Verde, Chile, has thrown the archaeological world into uproar. The site is 1,300 years older than the previously oldest known site, and it is about 16,000 km away from the Asian-Alaskan land-bridge over which the first Americans are thought to have migrated.

Given that massive glaciers covered much of the continent at that time, the first settlers could have migrated between 14,500 and 40,000 years ago.

(Source: Reuters; Sydney Morning Herald, 18 February 1998)

STORM OVER AGE OF AUSTRALIAN ROCK CUPULES

Is mainstream science rejecting controversial research data because it does not conform with accepted parameters?

In September 1996, the *Sydney Morning Herald* announced to the world that a team of scientists had found Aboriginal rock art and stone tools at Jinmium in the remote Northern Territory, which implied that the first people arrived in Australia between 116,000 and up to 176,000 years ago—more than 100,000 years earlier than scientists had believed. Naturally, if this were shown to be true, the entire global history of man would have to be rewritten.

It would have been obvious to the team of four scientists—David Price, Paul Taçon, Lesley Head and Richard Fullagar (the team leader)—that this was no small announcement, and no doubt they checked and rechecked their findings very carefully before making the announcement that would either make them or break them.

Predictably, the interest was immediate and intense, resulting in a very hectic year for all four scientists. Despite the pressure, they stuck to

their research and chronology.

At that point, strange things started to happen: Fullagar's application to the Australian Research Council for funding to continue the research was unsuccessful; and an article about the Jinmium controversy appeared in an obscure publication, the *National Pictographic Society News Letter*. The article was published under Dr Paul Taçon's name and contained many factual errors and unattributed quotations. Taçon, though, has never heard of the society, nor did he have anything to do with the piece. He is now considering legal action.

In December 1997 the *Sydney Morning Herald* made another splash on the subject by announcing that "new dating techniques" had revised this figure from the 176,000 maximum to 40,000 years and possibly only 10,000 or 5,000 years. It seems that a new team of 'experts' has found reason to reinterpret Fullagar's team's findings.

However, team member David Price, a geochronologist at the University of Wollongong, stands by his dating. He strongly disagrees with the contention that he fell into a "methodological misconception" on a technical matter.

(Source: SMH, 23 December 1997)

FAVOURABLE CANNABIS REPORT COVERED UP

Officials at the World Health Organization (WHO) in Geneva have suppressed the publication of a politically sensitive report that confirms what ageing hippies have known for decades: cannabis

is safer than alcohol or tobacco.

According to the report which was leaked to *New Scientist* magazine, the analysis concludes not only that the amount of cannabis smoked worldwide does less harm to public health than alcohol and cigarettes, but that the same is likely to hold true even if people consumed it on the same scale as these legal substances.

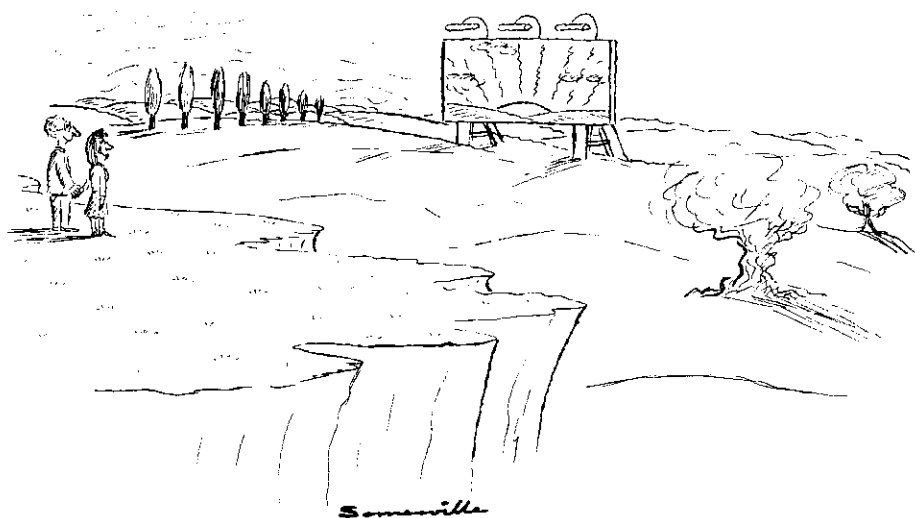
The report was to be the WHO's first report on cannabis for 15 years and was being eagerly awaited by doctors and specialists in drug abuse. However, it was ditched at the last minute following a long, intense dispute between WHO officials, the cannabis experts who drafted the report, and a group of external advisers believed to be from the US National Institute on Drug Abuse and the UN International Drug Control Program.

According to one member of the expert panel who drafted the report, it was feared by the advisers that the report would be used by groups campaigning to legalise marijuana.

(Source: New Scientist, 21 February 1998)

LUDICROUS ITEMS EMBARGOED IN IRAQ SANCTIONS

These are just a few of the items that have been, and still are, under embargo to Iraq since the Gulf War: aluminium foil, ambulances, ashtrays, axes, balls, baskets, bed lamps, belts, bicycles, books (all categories), candles, candlesticks, carpets, cars, chairs, coats, combs, computers, desks, detergents, dishes, dolls, doorknobs, doormats, envelopes, electric cords, eye-



glasses, fans, filing cabinets, filters, forks, generators, hairpins, hammers, handkerchiefs, hats, hoes, hoses, jackets, kettles, light bulbs, magazines, matches, mirrors, mops, mugs, music CDs, musical instruments, napkins, oil lamps, pens, pots, razor blades, sandals, scales, screws, shirts, shoes, soap, sponges, stoves, sun hats, tables, telephones, timber, tin, tyre pumps, toys, TV sets, trash cans, tractors, trucks, venetian blinds, wallpaper, watches, water pumps, wheels, wood, wool and wrenches.

The sanctions, combined with radiation poisoning, bombed hospitals, fouled water supplies, etc., have reportedly resulted in the deaths of up to 1.7 million Iraqis, mostly children and the elderly, over the past seven years.

(Source: Green Left Weekly, 25 February & 4 March 1998)

US BANS INSPECTION OF ITS OWN CHEMICAL WEAPONRY

The United States, while preparing to attack Iraq in order to enforce weapons inspections, has drafted legislation on the inspection of its own chemical weapons arsenal in such a way that the President can refuse admission to international inspectors.

The legislation allows the President to pick and choose inspectors and to deny access to personnel from other countries without giving reasons, and with no legal redress against the decision.

In fact, the two sections containing the code of inspection over which the US threatened war against Iraq are both specifically omitted!

Ms Amy Smithson, who has waged a one-woman campaign for US ratification of

the international Chemical Weapons Convention, said: "We are in violation of the treaty, and it is so ironic that we are about to engage in hostilities against Iraq over the matter of weapons inspections because Saddam Hussein has registered the same exceptions as we have done."

(Sources: The Guardian, London; Sydney Morning Herald (SMH), 13 February 1998)

POPE HAS DOUBTS ABOUT 'NEW AGE' THINKING

The Pope is preparing an attack on "New Age" beliefs, an onslaught expected to be set out in an encyclical—a papal letter sent to all Roman Catholic bishops, and the most authoritative way in which he can make his ideas known.

His main objection is understood to be the concept of "systematic doubt", on the grounds that it precludes a belief in God that is rooted in certainty.

The Pope sees systematic doubt as the key to a system of beliefs which put man, not God, at the centre of the universe. He is thought to regard the New Age movement, with its emphasis on self-realisation, as a product of such thinking.

If, as reports in Rome suggest, a rare encyclical is issued, it will be a measure of the alarm that New Age thinking provokes at the highest levels in the Catholic Church.

(Source: SMH, 27 February 1998)

MOON WATER OFFERS HOT PROSPECTS FOR LUNAR BASE

Preliminary data collected from the Lunar Prospector, a US\$65 million robot craft launched in January, indicates that there is enough water frozen in the loose soil of the Moon to support a lunar

base or even a colony one day.

Initial estimates indicate that the Moon holds, in widely separated deposits, enough water to fill a lake 5.2 square kilometres by 10.5 metres deep.

"We think we are seeing between 10 million and 100 million tonnes of water," suggested Alan Binder, the NASA project's principal scientist.

(Source: SMH, 7 March 1998)

HOW TO PLUG LEAKS

Governments have always been plagued by leaks. Now Sun Microsystems of California has come up with a patent (EP 798 619) to identify the culprits.

The technique can identify the source of the document if it has been photocopied, or scanned with optical character recognition. It even works if the document has been retyped!

Each authorised recipient of the document is assigned a number in binary code. Sun's coding system then analyses the text and makes minor changes to each copy, such as leaving out a comma. These changes incorporate the unique code in the text without altering the meaning.

If someone leaks a copy, Sun's decoder compares the leaked document with its master, logs the differences and works out which of the authorised copies has been leaked.

(Source: New Scientist, 10 January 1998)

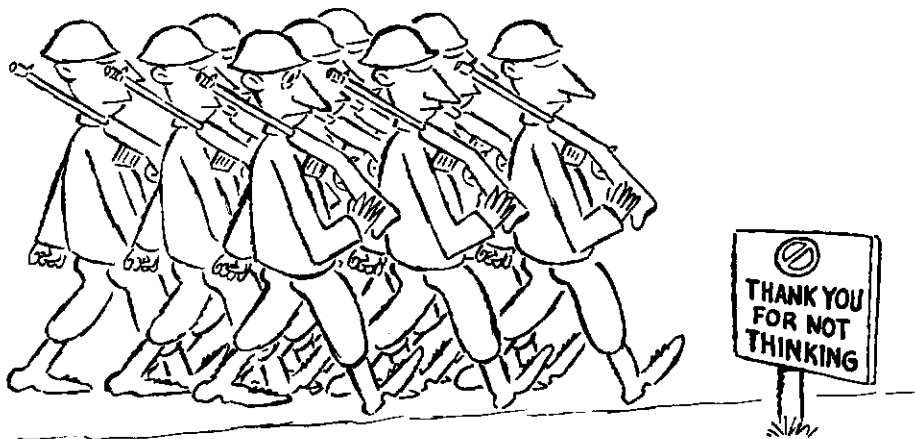
MMR VACCINE LINKED TO AUTISM AND BOWEL DISORDER

British doctors have discovered that the MMR (measles, mumps, rubella) vaccination may be a trigger for autism.

The study, conducted at the Royal Free Hospital, Hampstead, north London, also found a link between the vaccine and inflammatory bowel disease. It showed that out of 12 children who had previously been diagnosed normal, all developed an intestinal disorder and nine developed autism. According to GPs involved in the study, eight of the children developed changes in health and behaviour within six days of being vaccinated.

In a study of another group of children, 46 out of 48 experienced bowel and behavioural problems within six days of being given the vaccine.

(Sources: Herald Sun, Melbourne, 28 February 1998; Weekly Telegraph, London, 4-10 March 1998)



ENGLISH FREEMASONS IN THE LINE OF FIRE

The United Grand Lodge of England has been ordered to release the names of police officers allegedly involved in a series of corruption scandals.

The Lodge was given 14 days to comply with the request by the Commons Home Affairs Select Committee or face being arraigned before the House for contempt of Parliament.

The move came after MPs lost patience with Commander Michael Higham, Grand Secretary of the Freemasonry movement, when he repeatedly refused to provide information.

Commander Higham insisted that unless specific allegations were made he could not identify the men. They are among 169 serving and former policemen who were either members of the disbanded West Midlands Serious Crimes Squad or were involved in investigations into the Birmingham pub bombings and the Stalker affair.

In a further move, British Home Secretary Jack Straw has announced that in future, all judges, magistrates, Crown prosecutors, probation officers, prison staff and police officers will have to declare if they are members of the Lodge.

(Source: Weekly Telegraph, London, 25 February to 3 March 1998)

'WOMEN POWER' HALTS WORK ON INDIAN DAM PROJECT

On 3 October last year, after months of secret preparations, 10,000 Indian villagers, led by women and travelling in the dead of night while dodging police roadblocks, arrived at dawn at the huge, partly built dam on the Narmada River in Madhya Pradesh. Within minutes they had surprised the few guards and cut radio communications. By 6.30 am, one the largest sit-ins in Indian history had begun.

The 400-megawatt Maheshwar Dam is part of the multibillion-dollar Narmada Valley Development Project which involves plans for 30 big dams and over 3,000 small dams, and would displace more than 100,000 people.

Protests against the dams began more than 10 years ago, and thousands of women have said they are prepared to drown rather than move. This is the first time that all work has been stopped on one of the sites.

(Source: The Guardian Weekly, London, w/e 18 January 1998)

USDA PLANS WOULD OUTLAW GENUINE ORGANIC PRODUCE

by George Monbiot

Oprah Winfrey is an unlikely hero of the battle against big business. Yet the recent case she won, wherein she established her right to express an opinion about the merits of eating beefburgers, ranks with the McDonald's libel trial as one of the few serious setbacks suffered by the agro-industrial combines seeking to monopolise world food production.

She was sued by a syndicate of monster cattle ranchers under the surreal "food disparagement" laws, introduced in 14 American states to prevent people from questioning such practices as feeding bovine offal to cows.

These laws are a compelling demonstration of the lengths to which US legislators will go to defend the interests of corporations against the interests of citizens. We [in the UK] can only be thankful that there's an ocean between us and American plutocracy.

Our happy state won't last, however. Winfrey might have won her battle, but the war waged by an industry that can tolerate no dissent has only just begun. Its latest attempt to silence criticism and eliminate good practice is already well-advanced, and this time the consequences for Britain are just as profound as the consequences for America.

By 16 March, the US Department of Agriculture (USDA) will have closed its consultations on a new national standard for organic farming. Its proposals have horrified small farmers, consumer groups and animal welfare campaigners. If adopted and implemented, as protesters predict, the standards will outlaw genuine organic production all over the world.

The USDA would allow the labelling of fruit and vegetables in the United States as "organic" when they have been genetically engineered, irradiated, treated with additives and raised on contaminated sewage sludge. Under the new proposals, "organic" livestock can be housed in batteries, fed with the offal of other animals and injected with biotics. "Organic" produce, in the brave new world of American oligopoly, will be virtually indistinguishable from conventionally toxic food.

The solution would seem to be obvious: genuine organic producers should call their food something else. But the USDA is nothing if not far-sighted. The new proposals prohibit the setting of standards higher than those established by the department. In other words, farmers will be forbidden by law from producing and selling good food.

The next step, if these standards are adopted in the United States, is not hard to anticipate. American manufacturers will complain to their government that the European Union is erecting unfair barriers to trade by refusing to allow them to label the poisonous produce they sell here as organic food. The US Government will take the case to the World Trade Organization. The WTO will refer it to Codex Alimentarius, the food standards body dominated by corporate scientists. The Codex panel will decide that they cannot see any difference between American organic produce and European organic produce, and the WTO will threaten Europe with punitive sanctions if it continues to maintain the higher trading standard. This is precisely the means by which European consumers are being forced to eat beef and drink milk contaminated with injectable growth hormones.

There's no mystery about why US agribusiness wants its Washington subsidiary, the USDA, to set these new standards. The consumption of organic food is rising by 20 to 30 per cent a year, and in some countries is likely to become the dominant land-use. Organic farming is labour-intensive. It responds best to small-scale production, matched to the peculiarities of the land. Big business simply can't operate in an environment like this. There is no potential for hegemony. What it can't control, it must destroy.

The United States Government claims to be the champion of free trade, but it is, in truth, emphatically opposed to it. It seeks instead to exercise a coercive power of central control and legislative diktat—on a scale which makes the command economies of the old Soviet Union look like a village paper-round.

I've long believed that we should be allowed to vote in US elections, as their outcome affects us almost as much as it affects the Americans. British people now have a brief opportunity to do the next best thing and demand of the USDA that it drop this attempt to smother the seeds of rehabilitation. There are no second chances. Once the new standards come into force, our own government will be powerless to protect us from the consequences.

(Source: The Guardian, UK, 5 March 1998)